



United States Naval Station

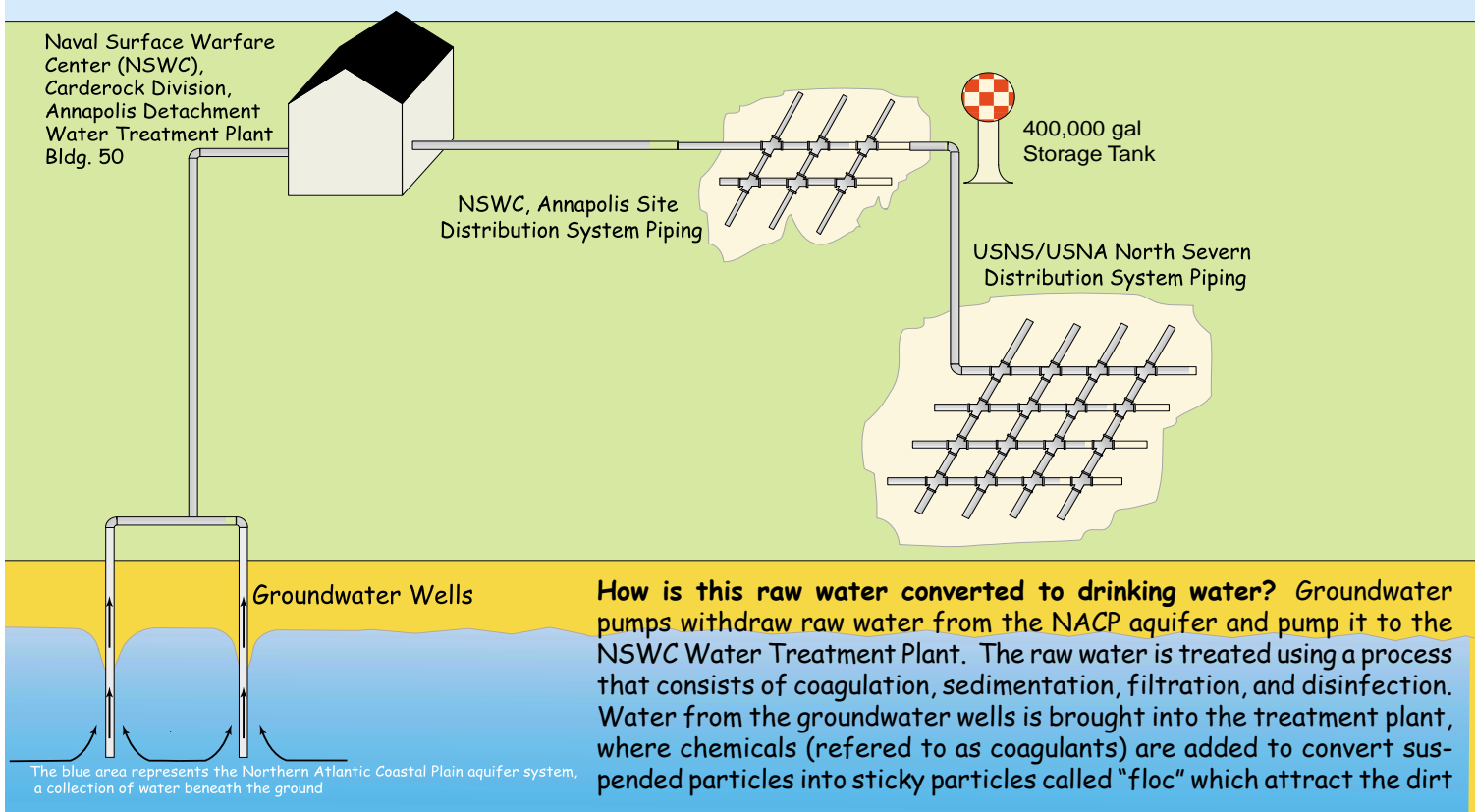
1999 WATER QUALITY REPORT



PROVIDING HIGH QUALITY WATER TO OUR PERSONNEL AND THEIR FAMILIES

United States Naval Station and USNA-North Severn (USNS) is committed to providing you drinking water that is safe and reliable. USNS believes that providing you with accurate information about your water is the best way to assure you that your water is safe. This 1999 Water Quality Report will explain where your water comes from and contains a table listing all contaminants detected in your water. **We are happy to report that the levels of all contaminants detected in your drinking water were less than the Maximum Contaminant Levels prescribed by the USEPA and the Maryland Department of the Environment.**

Where does your water come from? The USNS obtained treated water from Naval Surface Warfare Center, Caderock Division, Annapolis Detachment (NSWC) in 1999. NSWC owned and operated a water treatment plant. Wells located in an area referred to as the Upper Chesapeake Bay watershed are the source of raw or untreated water. This raw water comes from the Northern Atlantic Coastal Plain aquifer system. Due to the closure of NSWC, in January 2000 Anne Arundel county became the water provider. Therefore, the 2000 Water Quality Report will be modified to reflect this change. If you would like to see the 1999 Anne Arundel county report it can be found at www.aadpw.org or call 410-222-7582.



particles in the raw groundwater. This process is called coagulation. The next step is called sedimentation, where many of the sticky particles and dirt form particles that are too heavy to float, and sink to the bottom of a tank. Remaining particles are removed in the following step, called filtration. In this step the water is pumped into a basin filled with layers of sand and carbon granules. After the water passes through the filters, fluoride is added to prevent tooth decay and a small amount of chlorine is added to kill any bacteria or microorganisms that may be in the water. This clean water is then pumped into closed storage tanks where it remains until, when needed, it flows through pipes to your homes and offices at USNS and USNA-North Severn.

Definitions

Action Level (AL) - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements which a water system must follow.

Coliform - A group of bacteria commonly found in the environment. They are an indicator of potential contamination of water. Adequate and appropriate disinfection effectively destroys coliform bacteria.

Disinfection - A process that effectively destroys coliform bacteria.

Contaminant - Any natural or man-made physical, chemical, biological, or radiological substance or matter in water, which is at a level that may have an adverse effect on public health, and which is known or anticipated to occur in public water systems.

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Nitrates - A dissolved form of nitrogen found in

fertilizers and sewage by-products which may leach into groundwater and other water sources. Nitrates may also occur naturally in some waters.

NTU (nephelometric turbidity unit) - A measure of the clarity of water.

Pathogens; disease-causing pathogens; waterborne

pathogens - A pathogen is a bacterium, virus or parasite that causes or is capable of causing disease. Pathogens may contaminate water and cause waterborne disease.

pCi/L, picocuries per liter - A measurement of radiation released by a set amount of a certain compound.

pH - A measure of the acidity or alkalinity of water.

ppb, ppm - part per billion, part per million. Measurements of the amount of contaminant per unit of water. A part per million is like one cent in \$10,000 and a part per billion like one cent in \$10,000,000.

Trihalomethanes (THM) - Four separate compounds (chloroform, dichlorobromomethane, dibromochloromethane, and bromoform) that form as a result of disinfection.

Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water.

Turbidity - A measure of the cloudiness of water caused by suspended particles.

Understanding Your Drinking Water

Your tap water is safe to drink and is of a higher quality than required by all state and federal standards for drinking water. The federal Safe Drinking Water Act (SDWA) has been the primary regulation to ensure that public health and safety is protected in drinking water supplies.

NSWC and NSNS routinely monitors your drinking water for over 80 different contaminants. The data tables shown at right list only those contaminants that were present in your drinking water at levels detectable by laboratory equipment. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), the amount detected, the usual sources of such contamination, and footnotes explaining our findings. This information is based on testing conducted during 1999 (unless otherwise noted in the table). The Maximum Contaminant Levels (MCLs) listed in the tables are set by the USEPA. These levels are based on the assumption that the average person drinks 2 liters of water each day over a 70-year life span. The MCLs are typically set at a level that will cause no harm or a one-in-ten thousand to one-in-a-million chance of having the associated health effect as a result of exposure to a particular contaminant.

Microbial Testing - Monthly tests are performed throughout the distribution system to look for indicator organisms called Coliform bacteria. If these bacteria are detected, there may also be a potential for the presence of other more harmful organisms in the drinking water. During the 1999 monitoring period no coliform bacteria were detected in any of the distribution system samples collected.

Discolored Water Complaints - In the past, customers have experienced discolored water coming out of their faucets. This is usually the result of very small deposits of iron and manganese that settle in the water pipes of our distribution system. Occasionally these deposits are disturbed and suspended in the water as it travels to your tap. This discolored water is generally not a health risk, however it can cause staining of plumbing fixtures and laundry. To combat this problem Public Works developed a comprehensive distribution system flushing program. Fire hydrants throughout our distribution system are systematically opened in different parts of the system to remove debris from the water mains. This in combination with the switch to Anne Arundel country water have greatly reduced discolored water problems. Should you have any questions concerning your drinking water call Mr. Thomas Moran, Air and Programs Manager, at 410-293-1029/24 or W. Brock Durig, Environmental Director, at 410-293-1025/24.

1999 Monitoring Data for USNS and North Severn (as required by the National Primary Drinking Water Regulation)

| Substance | Likely Source | Range | Avg. Level | MCL | Unit | Exceeds EPA Standards ? |
|-----------------------|---|--------------|------------|-------|------|-------------------------|
| Arsenic | Herbicides, erosion of natural deposits | N/A | < .005 | 0.05 | mg/l | no |
| Barium | Erosion of natural deposits | N/A | < .05 | 2 | mg/l | no |
| Cadmium | Corrosion of galv. Pipe, erosion of natural deposits | N/A | < .0005 | 0.005 | mg/l | no |
| Chromium | Erosion of natural deposits | N/A | <.01 | 0.1 | mg/l | no |
| Fluoride | Added for the prevention of tooth decay | N/A | 0.8 | 4 | mg/l | no |
| Mercury | Discharge from refineries & factories; erosion of natural deposits; landfill runoff | N/A | 0.005 | 0.002 | mg/l | no |
| Selenium | erosion of natural deposits; refinery runoff; discharge from mines | N/A | <.005 | 0.05 | mg/l | no |
| Antimony | fire retardants; ceramics; electronics; solder | N/A | <.006 | 0.006 | mg/l | no |
| Beryllium | metal refineries; coal burning factories; defense industries | N/A | <.0005 | 0.004 | mg/l | no |
| Thallium | Leaching from ore processing; electronics; pharmaceutical companies | N/A | <.002 | 0.002 | mg/l | no |
| Nitrate | Fertilizer run off; leaching from septic tanks; erosion of natural deposits | N/A | 0.2 | 10 | mg/l | no |
| Lead | Corrosion of household plumbing, erosion of natural deposits | < 0.005 | <0.005 | 0.015 | mg/l | no |
| Copper | Corrosion of household plumbing, erosion of natural deposits, leaching from wood preservative | <0.01 - 0.15 | 0.052 | 1.3 | mg/l | no |
| Gross Alpha Particles | Erosion of natural deposits | N/A | <1.0 | 15 | pc/l | no |

Drinking Water and Your Health (continued)

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. Some people may be more vulnerable to contaminants in drinking water than the general population.

Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/Aids or other immune systems disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Act Hotline (1-800-426-4791/www.epa.gov/ogwdw).

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Any bottled water that is labeled "Drinking Water" has to meet FDA's drinking water regulations. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

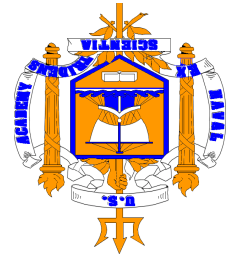
More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).



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United States Naval Station
Annapolis, Maryland



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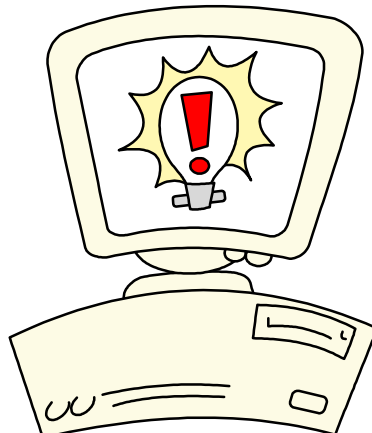
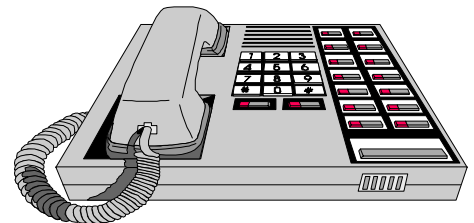
If you have any questions about this 1999 Water Quality Report please contact:

Thomas Moran- Air & Water Programs Manager
(410) 293-1029/24, e-mail twmoran@nadm.navy.mil
Or

W. Brock Durig - Env. Division Director
(410) 293-1025/24, e-mail durig@nadm.navy.mil

You can also check out our Website:
www.nadm.navy.mil
Site index and then water

**EPA's Safe Drinking Water
HOT LINE**
1 (800) 426-4791



Visit the Environmental Protection Agency Website at: <http://www.epa.gov/safewater>